

TWO NEW GENERA AND FOUR NEW COMBINATIONS OF SIGALIONIDAE (POLYCHAETA)

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Abstract.—Among the heterogeneous group of sigalionid species originally assigned to *Leanira* Kinberg, 4 species are separated and referred to new genera: *Labioleanira* and *Labiosthenolepis*, both genera each with two new combinations, and there is also one junior synonym in *Labiosthenolepis*. These new genera are characterized by labial lobes on the lateral lips of the ventral mouth.

Of the heterogeneous group of sigalionid species that have spinigerous or distally pointed, camerated or canaliculate compound neurosetae, four genera have been treated previously by me: *Leanira* Kinberg, 1856, limited by Pettibone, 1970b; *Ehlersileanira* Pettibone, 1970b:19; *Neoleanira* Pettibone, 1970c:367; and *Horstileanira* Pettibone, 1970c:377. Willey established the genus *Sthenolepis* for four species of *Leanira* described by McIntosh (1885) from the *Challenger* Expedition, including *L. areolata* and *L. japonica*, both from Japan, *L. laevis*, from New Zealand, and *L. magellanica*, from the Magellan area. *L. japonica* was designated as the type species of *Sthenolepis* by Hartman (1965:54). *L. areolata* and *L. magellanica* were referred to *Neoleanira* by Pettibone (1970c). *L. laevis* is herein referred to *Labiosthenolepis*, new genus, along with a second species, *Leanira sibogae* Horst, 1917. Species of *Sthenolepis* will be treated in a subsequent paper. Two additional species of *Leanira* are herein referred to *Labioleanira*, new genus: *L. yhleni* Malmgren, 1867 and *L. tentaculata* Horst, 1917. The new genera are characterized by labial lobes on the lateral lips of the ventral mouth. Some species of *Leanira* also display this character.

In addition to the sigalionid collections in the Smithsonian Institution (USNM), material was obtained on loan or in exchange from the following sources: British

Museum (Natural History), London (BMNH), through J. D. George; Museum National d'Histoire Naturelle, Paris (MNHN), through J. Renaud-Mornant; Naturhistoriska Riksmuseet, Stockholm (NRS), through R. Oleröd; Queensland Museum, Brisbane (QMB), through B. Campbell; Rijksmuseum van Natuurlijke Historie, Leiden (RNHL), through J. van der Land; Zoölogisch Museum Universiteit van Amsterdam (ZMA), through S. van der Spoel; Zoologisches Museum, Berlin (ZMB), through G. Hartwich; Zoologisches Staatsmuseum, Hamburg (ZMH), through G. Hartmann-Schröder. Additional material was received from Australia via H. Paxton; from Tonga, via J. Bailey-Brock; and from the Tyrrhenian Sea via M. C. Gambi. The manuscript benefited from the suggestions of Pat Hutchings and two anonymous reviewers.

Labiosthenolepis, new genus

Type species.—*Leanira laevis* McIntosh, 1885. Gender, feminine. For *Labiosthenolepis laevis* (McIntosh, 1885), new combination, with synonym *Sthenelais semitecta* Ehlers, 1905, and *Labiosthenolepis sibogae* (Horst, 1917), new combination (as *Leanira*).

Diagnosis.—Body elongate, with numerous segments (up to 130), flattened dorso-ventrally, tapering posteriorly. Elytra and

elytrophores on segments 2, 4, 5, 7, continuing on alternate segments to 27, then on every subsequent segment; elytra delicate, smooth, without papillae or tubercles; dorsal tubercles on some non-elytrigerous segments; cirriform branchiae attached to elytrophores and dorsal tubercles; parapodial ctenidia, 3 per parapodium, located dorsally to notopodium. Prostomium oval, fused to tentacular segment (I), with 3 antennae: ceratophore of median antenna long, stout, with lateral auricles and long style; lateral antennae small, attached to inner dorsal side of I; 2 pairs of eyes; paired palps long, tapering, emerging ventral to tentacular parapodia, with longer inner and shorter outer palpal sheaths; tentaculophores with long dorsal and short ventral tentacular cirri, with L-shaped inner tentacular lobe; setal lobe with single aciculum and well-developed bundle of capillary setae, directed anteriorly. Buccal segment (II) with first pair of elytra and elytrophores, biramous parapodia with stylodes; ventral buccal cirri larger than following ventral cirri; lateral lips of ventral mouth with flattened or lobulate labial lobes. Segment III without dorsal cirri, with or without small dorsal tubercles. Parapodia biramous, notopodia with subdistal bract with circlet of stylodes and large distal stylode; neuropodia with presetal conical acicular lobe and bilobed postsetal lobe, both with stylodes; notosetae long, capillary, smooth and spinose; neurosetae compound spinigers, with blades canaliculate, tapering to fine tips; without additional simple neurosetae. Ventral cirri short, tapered, with rounded knob on base. Pharynx with 11 pairs of border papillae and 2 pairs of jaws. Pygidium with pair of long anal cirri.

Remarks.—*Labiostenolepis* agrees with *Sthenolepis* Willey, 1905, *Neoleanira* Pettibone, 1970c, and *Horstileanira* Pettibone, 1970c, in having inner tentacular lobes on segment I and the ceratophore of the median antenna with lateral auricles. *Neoleanira* differs in having long dorsal cirri on segment III, lacking in the other three gen-

era, and rather long lateral antennae attached to the tentaculophores of segment I, instead of small, inconspicuous lateral antennae. Dorsal tubercles are present on segment III on *Horstileanira* and *Sthenolepis*, and small or lacking on *Labiostenolepis*. The neuropodia of *Horstileanira* have four parapodial bracts, two presetal and two postsetal; the neuropodia of *Sthenolepis* and *Labiostenolepis* have conical presetal acicular lobes and bilobed postsetal lobes or bracts. *Labiostenolepis* differs from the above three genera by the presence of labial lobes on the lateral lips of the ventral mouth.

Etymology.—*Labio*, labium or lip, plus *Sthenolepis*, in reference to the labial lobes on the lateral lips on the ventral mouth and its close relationship to *Sthenolepis*.

Labiostenolepis laevis (McIntosh, 1885),
new combination
Figs. 1, 2

[Not *Leanira laevis* McIntosh, 1874:268.
Nomen nudum.]

Leanira laevis McIntosh, 1885:156, pl. 20: fig. 4, pl. 23: figs. 10, 11, pl. 14A: fig. 3.—Knox, 1960:95.

Sthenelais semitecta Ehlers, 1905:10, pl. 1: figs. 10–12, pl. 2: figs. 1–4.—Benham, 1909:2.

Sthenolepis laevis.—Augener, 1924:271.—Hartman, 1965:14 (Catalogue).—Day and Hutchings, 1979:93.

Material examined.—South Pacific Ocean: Queen Charlotte Sound, New Zealand, 18 m, *Challenger* sta, holotype of *Leanira laevis* (BMNH 1885.12.1.119b). Lyttelton, New Zealand, M. Suter, coll., 1897, 100+ syntypes of *Sthenelais semitecta* (ZMH 3224, 5398; ZMB 6720; USNM 55111).

Remarks.—The name *Leanira laevis* was first used by McIntosh (1874: 268) for some specimens collected by the *Porcupine* Expedition in 1869 but without describing the animals. Later, in the more detailed report on the *Porcupine* polychaetes, McIntosh

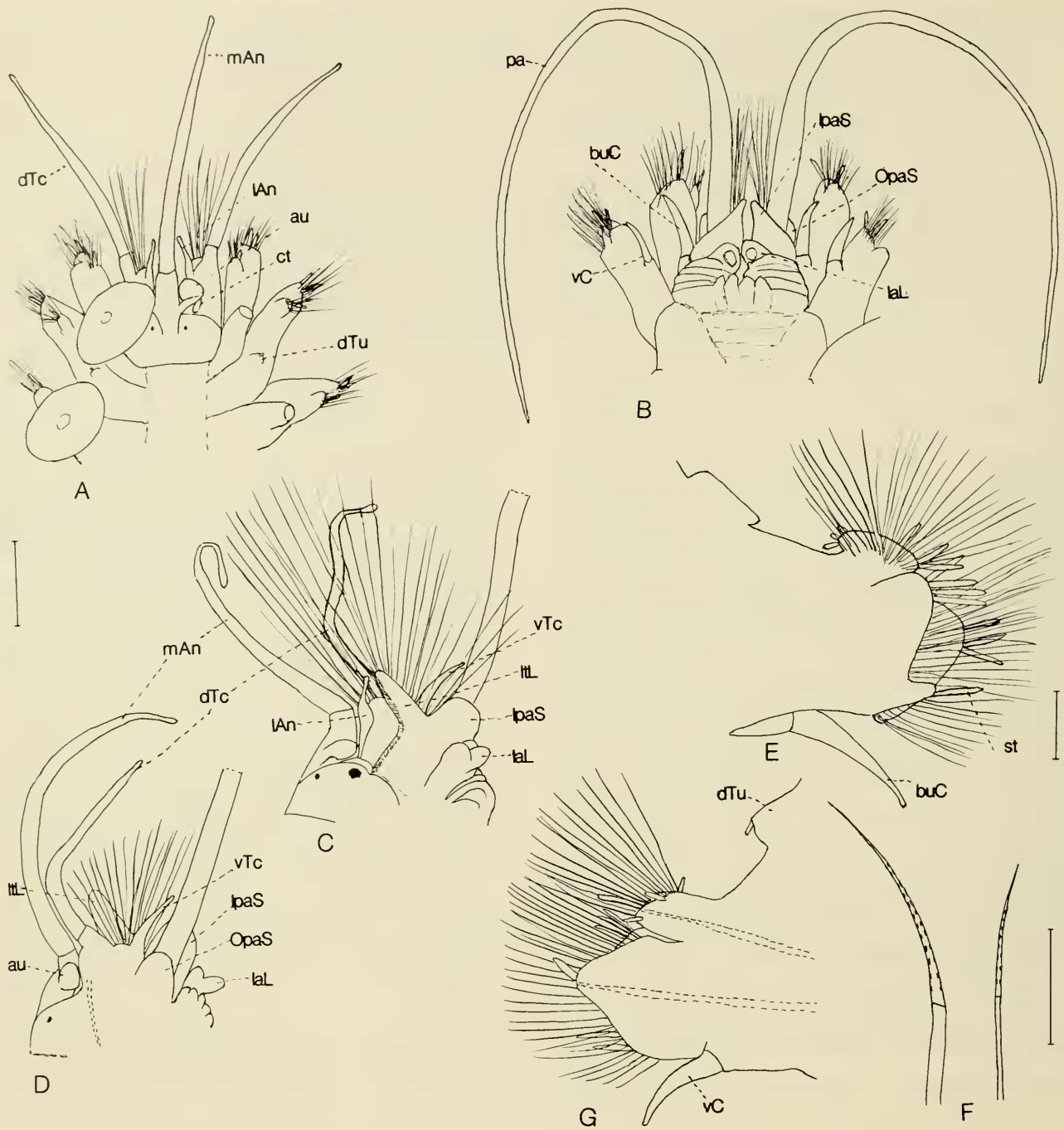


Fig. 1. *Labiosthenolepis laevis*, syntypes of *Sthenelais semitecta* (ZMB 6720): A, Dorsal view of anterior end, palps not shown; B, Ventral view of anterior end; C, Lateral view of prostomium and inner view of left I (right I removed), left palp partially shown; D, Lateral view of prostomium and outer view of right I, aciculum dotted, right palp partially shown; E, Right elytrigerous parapodium of segment II, posterior view; F, Upper and lower neurosetae from same; G, Right parapodium of segment III, anterior view, acicula dotted. Scales = 0.5 mm for A–D; 0.2 mm for E, G; 0.1 mm for F. ac, aciculum; au, auricle or antennal ctenidium; br, branchia; buC, buccal cirri (segment II); ct, ctenidium; dTc, dorsal tentacular cirrus; dTu, dorsal tubercle; elph, elytophore; lpaS, inner palpal sheath; ItL, inner tentacular lobe; laL, labial lobe on lateral lip (segment II); lAn, lateral antenna; mAn, median antenna; nuO, nuchal organ; OpaS, outer palpal sheath; pa, palp; sp, segmental papilla; st, stylode; vC, ventral cirrus; vTc, ventral tentacular cirrus.

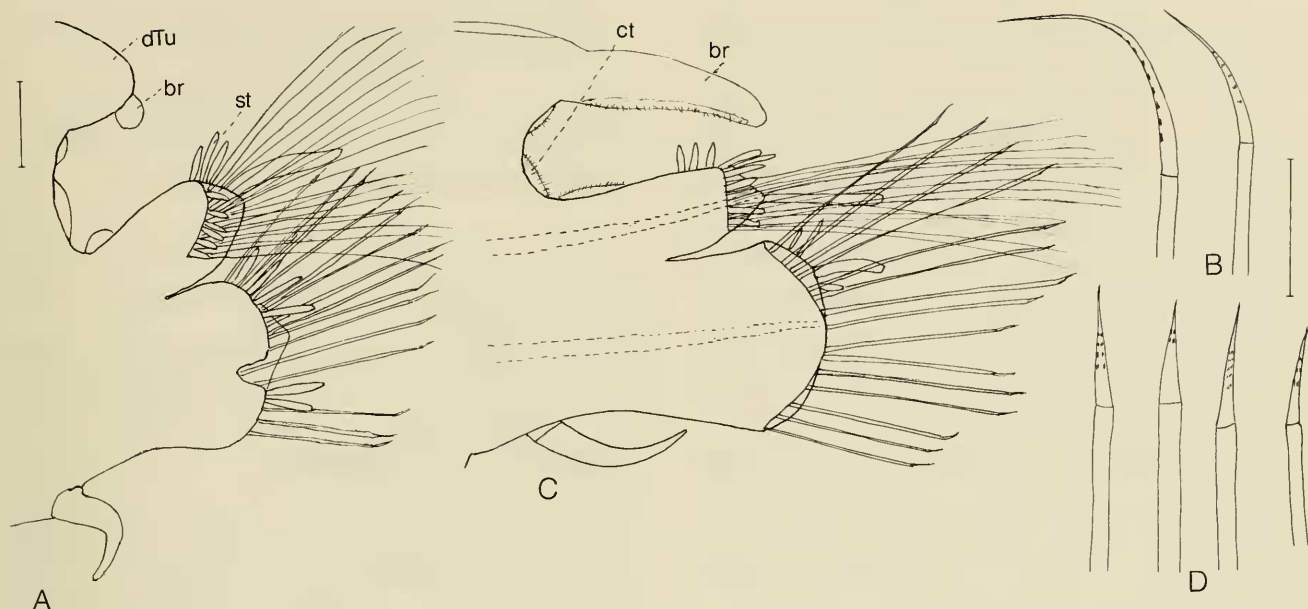


Fig. 2. *Labiostenolepis laevis*, syntype of *Sthenelais semitecta* (ZMB 6720): A, Anterior parapodium with dorsal tubercle and small branchia, posterior view; B, Lower and upper neurosetae from same; C, Middle elytrigerous parapodium, anterior view, acicula dotted; D, Upper, middle and lower neurosetae from same. Scales = 0.2 mm for A,C; 0.1 mm for B, D. For abbreviations, see Fig. 1.

(1876:408) referred these specimens to *Leanira hystricis* Ehlers, 1874. *Leanira laevis* McIntosh (1874) must be considered to be a *Nomen nudum*, as pointed out by Pettibone (1970b:8), and thus *Leanira laevis* McIntosh, 1885 is not a *Homonym*, as indicated by Hartman (1965:14) in her Catalogue, and the name is available for the *Challenger* specimen from New Zealand. *Sthenelais semitecta* Ehlers, 1905, also from New Zealand, was referred to *Sthenolepis laevis* McIntosh, 1885 by Augener (1924:271). The numerous available syntypes of *S. semitecta* serve to supplement the description of *L. laevis*.

Type material.—The holotype of *Leanira laevis* consists of an anterior fragment (in two pieces) of 29 segments. The more than 100 syntypes of *Sthenelais semitecta* consist mostly of fragments; a complete specimen is 30 mm long, 3.5 mm wide, and 112 segments. An anterior fragment of 36 segments is 18 mm long and 4.5 mm wide. Over 10 percent of the syntypes had parasitic copepods on the prostomia.

Description.—Body elongate, flattened dorsoventrally, largest in anterior third, ta-

pering gradually posteriorly. Elytra oval, overlapping anteroposteriorly, leaving mid-dorsum uncovered (Fig. 1A; McIntosh 1885; pl. 20: fig. 4, pl. 23: fig. 10; Ehlers 1905, pl. 1: fig. 10).

Prostomium and tentacular segment (I) fused basally; prostomium oval, twice as wide as long; ceratophore of median antenna long, stout, with large lateral auricles and long style, enlarged subterminally, with bulbous tip; lateral antennae short, subulate, with clavate tips, fused to dorsal-inner sides of I; posterior pair of eyes small, lateral to base of ceratophore; anterior pair very large, hidden from view dorsally by lateral auricles; palps long, emerging ventral to I, with rounded inner and shorter rounded outer palpal sheaths; tentaculophores each with single aciculum, long dorsal tentacular cirrus, similar to and slightly shorter than median antenna, and much shorter ventral tentacular cirrus; L-shaped inner tentacular lobe, fused basally to inner palpal sheath; radiating bundle of long capillary setae on outer side of I; small dorsal ctenidia on dorsal side of I, lateral to antennal auricles (Fig. 1A–D; Ehlers 1905, pl. 1: figs. 10–12).

Biramous parapodia of segment II or buccal segment with fleshy labial lobes on lateral lips of ventral mouth (Fig. 1B–D); notopodium rounded, with stylodes and radiating bundle of capillary notosetae, smooth and spinose; larger neuropodium with conical presetal acicular lobe with stylodes and shorter bilobed postsetal lobe with stylodes; ventral buccal cirri extending about to tip of neuropodium (Fig. 1E; Ehlers 1905, pl. 2: fig. 1); fan-shaped bundle of neurosetae all compound spinigers, with blades rather long, canaliculate, lower ones more slender (Fig. 1F). Parapodium of segment III similar to II, but with shorter ventral cirrus; small dorsal tubercle with distal papilla (Fig. 1G).

More posterior parapodia with branchiae beginning about segment 6, attached to dorsal tubercles or elytophores, small at first, becoming longer, digitiform more posteriorly; parapodial ctenidia, 3 per parapodium, dorsal to notopodium, also beginning about segment 6 (Fig. 2A, C). Notopodium with circlet of stylodes on subdistal bract and extra long distal stylode; neuropodium with scattered distal stylodes; short ventral cirrus with basal knob (Fig. 2A, C; Ehlers 1905, pl. 2: figs. 2–4). Neurosetae with canaliculate spinigerous blades, becoming shorter in more posterior parapodia (Fig. 2B, D). Pharynx with 11 dorsal and 11 ventral border papillae and 2 pairs of dark brown jaws. Pygidium with pair of long anal cirri.

Distribution.—South Pacific Ocean, off New Zealand, in 5–549 m.

Labiothenolepis sibogae (Horst)

Figs. 3, 4

Leanira sibogae Horst, 1917:115, pl. 24: figs. 1–3 (part; not sta 313; not 5 specimens from sta 51).

Leanira japonica.—Monro, 1937:263. Not McIntosh, 1885.

Leanira yhleni.—Rullier, 1965:171.—Stephenson, Williams, & Lance, 1970:466, 468. Not Malmgren, 1867.

Sthenolepis yhleni.—Day & Hutchings,

1979:93 (record of *L. yhleni* by Rullier, 1965). Not Malmgren, 1867.

Labiothenolepis sibogae.—Bailey-Brock, 1984:62A (Abstract); 1987:293, Appendix (in litt. from M. Pettibone).

Remarks.—Fauvel (1932:33) and Uschakov and Wu (1959:37) referred *L. sibogae* Horst (1917) to *L. japonica* McIntosh (1855). Based on a re-examination of the type-specimens, the two species are herein considered to be distinct.

Material examined.—Malay Archipelago, *Siboga* stations: Anchorage off Djangkar, Java, 07°42'5, 114°12.5'E, 9 m, coarse sand, sta 4, 9 Mar 1899, 6 syntypes (ZMA 526.1; RMHL 1168; USMM 55115). Bay of Labuan Tring, west coast Lombok. 08°44.5'S, 116°02.5'E, 18–27 m, mud, coral sand, sta 19, 21 Mar 1899, 2 syntypes (ZMA 526.2; RNML 1167). Bay of Bima, 55 m, mud, fine coral sand, sta 47, 8 Apr 1899, syntype (ZMA 526.3). Molo Strait, 69–91 m, fine grey sand, coarse sand with shells and stones, sta 51, 19 Apr 1899, 2 syntypes (ZMA 526.4; RNML 1166). Saleyer Anchorage, up to 36 m, mud and sand, sta 213, 26 Oct 1899, 4 syntypes (ZMA 526.5, 526.7).

Maldives, the John Murray Expedition, sta 137, 142B, 23, 30 Mar 1934, 37–46 m, 5 specimens (BMNH 1937.9.2.64–67, by Monro, 1937, as *L. japonica*).

Australia, Moreton Bay, S.E. Queensland, ¾ mi S.W. M3 Red Beacon, 10 Nov 1961, W. S. Stephenson, collector, 3 specimens (QMB G3971, as *L. yhleni* by Stephenson et al. 1970); 2 mi E. Woody Point Light, 7 m, mud, 15 Dec 1964, 3 specimens (QMB G4830; USMM 55113, as *L. yhleni* by Rullier 1965). Queensland, Halifax Bay, north of Townsville, 19°09'S, 146°37'E, 5 m, Jan 1977, H. Paxton, collector, 1 specimen (USNM 69376).

Tonga, Tapu Lagoon, 0–6 m, among *Halimeda*, soft mud, 23/24 Sep 1981, R. Brock, collector, 4 specimens (USMM 74412–4).

Type material.—Of the 19 syntypes of *Leanira sibogae* examined (ZMA, RMHL, USNM), 4 syntypes from sta 51 were re-

ferred by me to *Sthenelais* sp. and the syntype from sta 313 was made the holotype of *Horstleanira vanderspoeli* by Pettibone (1970c:378). The largest of the 14 remaining syntypes consists of about 100 segments, 50 mm long and 4 mm wide.

Description.—Elytra oval, delicate, without papillae or tubercles, leaving mid-dorsum uncovered. Prostomium and tentacular segment (I) fused basally; prostomium oval, wider than long; ceratophore of median antenna on anterodorsal side of prostomium, long, stout, with prominent wing-like lateral auricles and very long, tapering style; lateral antennae short, fused to dorsal inner sides of I; posterior pair of eyes lateral to base of ceratophore; much larger anterior pair of eyes hidden from view dorsally by lateral auricles; palps very long, emerging ventral to I, with large oval inner palpal sheath and shorter outer palpal sheath; tentaculophores each with single aciculum, long dorsal tentacular cirrus, similar to and slightly shorter than median antenna, and very short ventral tentacular cirrus; L-shaped inner tentacular lobe fused basally to inner palpal sheath: 2 groups of long capillary setae extending anteriorly, upper ones longer, smooth and spinous, lower ones shorter and smooth; dorsal side of I with oval ctenidium and few short stylodes between lateral antenna and base of dorsal tentacular cirrus (Fig. 3A, B; Horst 1917, pl. 24: figs. 1, 3).

Segment II or buccal segment with flattened tongue-like labial lobes on lateral lips of ventral mouth (Fig. 3B); biramous parapodium with notopodium rounded, with circlet of stylodes and radiating bundle of long capillary notosetae, upper ones spinose, lower ones smooth; larger neuropodium with conical presetal acicular lobe with stylodes and shorter bilobed postsetal lobe with stylodes; ventral buccal cirrus extending beyond distal tip of neuropodium (Fig. 3C); fan-shaped bundle of neurosetae all compound spinigers, with blades long, curved, canaliculate, with fine tips (Fig. 3D). Segment III without dorsal cirri or dorsal

tubercles (Fig. 3A; Horst 1917, pl. 24: fig. 3); parapodia similar to segment II but with shorter ventral cirri (Fig. 3E).

More posterior parapodia with branchiae beginning about segment 6, attached to dorsal tubercles or elytraphores, small at first, becoming longer, digitiform more posteriorly; parapodial ctenidia, 3 per parapodium, dorsal to notopodia, beginning about segment 12 (Fig. 4A, C). Notopodium with circlet of stylodes on subdistal bract and extra long distal stylode; neuropodium with presetal conical acicular lobe with distal stylodes and bilobed postsetal lobe with upper and lower groups of stylodes; short ventral cirrus with basal knob and articulate tip (Fig. 4A, C; Horst 1917, pl. 24: fig. 3). Neurosetae all compound spinigers with rather long canaliculate blades, lower ones more slender, with shorter blades (Fig. 4B, D).

Distribution.—Indo-Pacific, Malay Archipelago, Maldives, Australia, Tonga, in 0–91 m.

Labioleanira, new genus

Type species.—*Leanira yhleni* Malmgren, 1867. Gender, feminine. For *Labioleanira yhleni* (Malmgren, 1867), new combination and *Labioleanira tentaculata* (Horst, 1917), new combination

Diagnosis.—Body elongate, with numerous segments (up to 140), flattened dorso-ventrally, tapering posteriorly. Elytra and elytraphores on segments 2, 4, 5, 7, continuing on alternate segments to 27, then on every segment; elytra delicate, smooth, without papillae or tubercles. Cirriform branchiae attached to elytraphores or dorsal tubercles on non-elytrigerous segments; parapodial ctenidia, 3 per parapodium, dorsal to notopodium. Prostomium oval, fused to tentacular segment (I), with 3 antennae: ceratophore of median antenna stout, with lateral auricles and long style; lateral antennae small, attached to inner dorsal side of segment I; 2 pairs of eyes; paired palps long, tapering, emerging ventral to tentacular

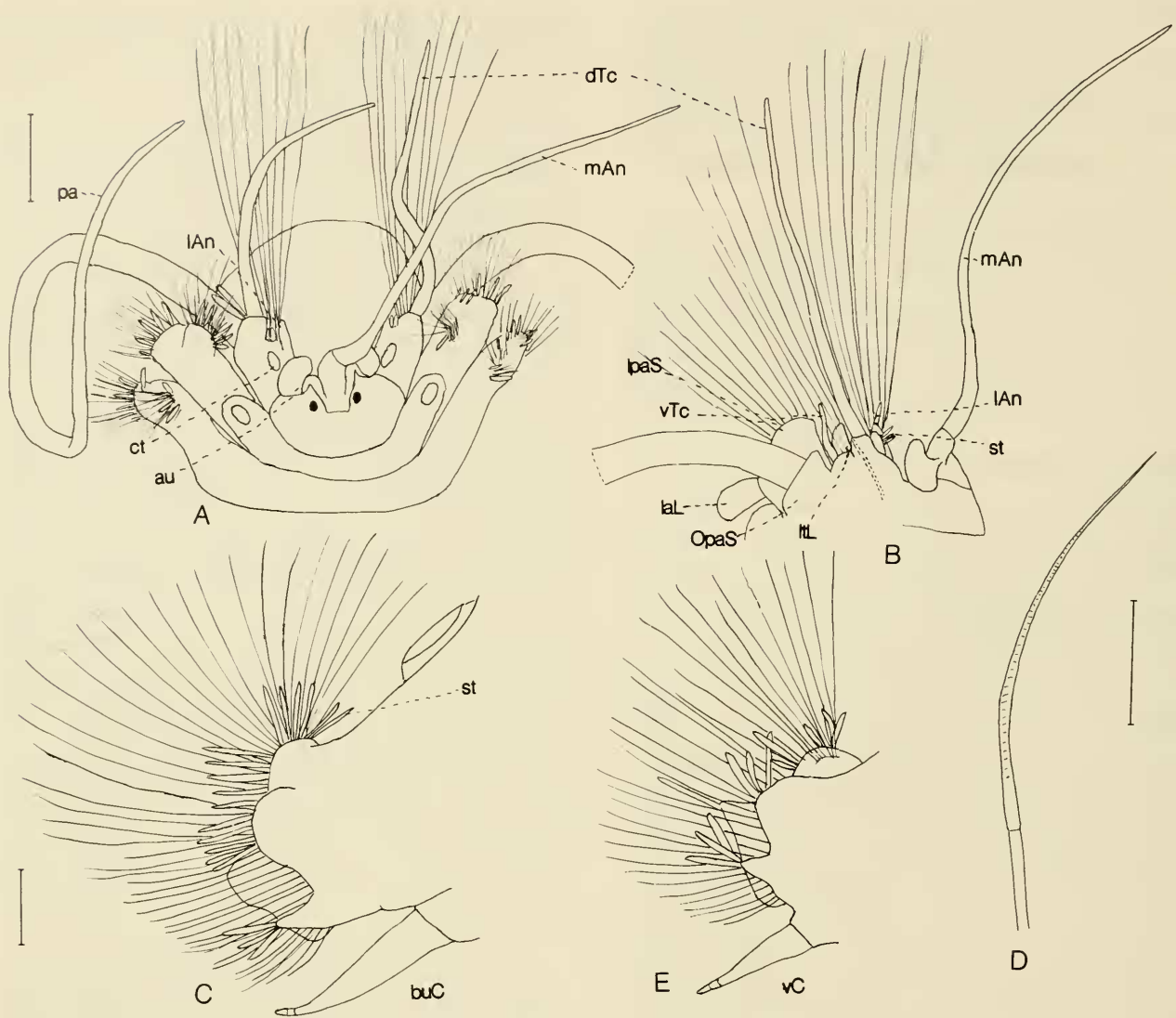


Fig. 3. *Labiosthenolepis sibogae*, syntype of *Leanira sibogae* (ZMA 526.2): A, Dorsal view of anterior end, pharynx partially extended, large anterior pair of eyes hidden by auricles on ceratophore of median antenna; B, Lateral view of prostomium, right I, and labial lobe on lateral lip, aciculum dotted, palp partially shown; C, Left elytrigerous parapodium from segment II, posterior view; D, Middle neuroseta from same; E, Left parapodium from segment III, posterior view. Scales = 0.5 mm for A, B; 0.2 mm for C, E; 0.1 mm for D. For abbreviations, see Fig. 1.

parapodia, with longer inner and shorter outer palpal sheaths; tentaculophores with long dorsal and short ventral tentacular cirri; setal lobe with single aciculum and well-developed bundle of capillary setae, directed anteriorly; without inner tentacular lobes. Buccal segment (II) with first pair of elytra and elytriphores, biramous parapodia with stylodes; buccal cirri thicker and longer than following ventral cirri; lateral lips of ventral mouth with fleshy or flat plate-like labial lobes. Segment III without dorsal cirri or dorsal tubercles. Parapodia biramous; no-

topodia with subdistal bract with circlet of stylodes; notosetae capillary, finely to coarsely spinose; neuropodia with subconical presetal acicular lobe and bilobed postsetal lobe with stylodes; neurosetae compound spinigers, with blades rather short, canaliculate, tapering to fine tips; with or without few additional simple spinose neurosetae. Ventral cirri short, tapered, with rounded basal knob. Pharynx with 11 pairs of border papillae and 2 pairs of jaws. Pygidium with pair of long anal cirri.

Remarks.—*Labioleanira* agrees with

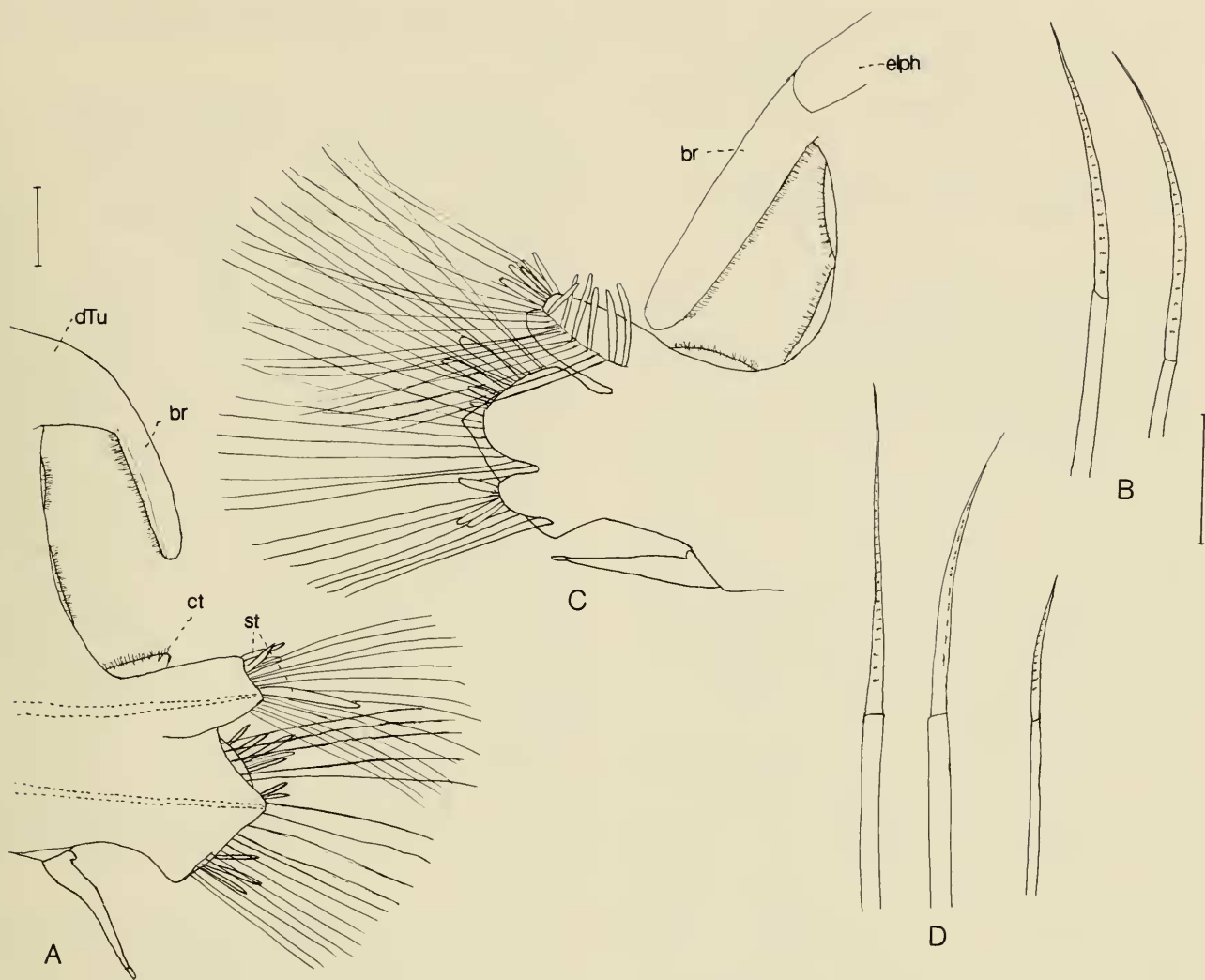


Fig. 4. *Labiosthenolepis sibogae*, syntype of *Leanira sibogae* (ZMA 526.2): A, Left anterior parapodium with dorsal tubercle, anterior view, acicula dotted; B, Middle and lower neurosetae from same; C, Left middle elytrigerous parapodium, posterior view; D, Middle and lower neurosetae from same. Scales = 0.2 mm for A, C; 0.1 mm for B, D. For abbreviations, see Fig. 1.

Leanira Kinberg, 1856 (limited) and *Ehlersileanira* Pettibone, 1970b in lacking inner tentacular lobes and dorsal ctenidia on segment I, and in lacking dorsal cirri and dorsal tubercles on segment III. *Labioleanira* differs from *Ehlersileanira* in having labial lobes on the lateral lips of the ventral mouth, instead of lacking labial lobes and in having the style of the median antenna long, instead of very short. *Labioleanira* differs from *Leanira* in having the ceratophore of the median antenna distinct and with lateral auricles, instead of lacking lateral auricles. Some species of *Leanira* agree with *Labioleanira* in having labial lobes on the lateral lips, such as *L. quatrefages* Kinberg,

the type species of *Leanira*, *L. hystricis* Ehlers, and *L. adenensis* Pettibone.

Etymology.—*Labio*, labrum or lip, plus *Leanira*, in reference to the labial lobes on the lateral lips of the ventral mouth and its close relationship to *Leanira*.

Labioleanira yhleni (Malmgren, 1867),
new combination
Figs. 5, 6

Leanira yhleni Malmgren, 1867:140.—Tebble, 1955:77.—Intes & Le Loeuff, 1975:289.

Leanira yhleni Malmgren?—McIntosh, 1876:409, pl. 73: fig. 9.

Sthenolepis yhleni.—Hartman, 1965:14 (Catalogue).—Campoy, 1982:98, pl. 6: figs. H, I.—Kirkegaard, 1983:200, fig. 3A–D.

[Not *Leanira yhleni*.—Rullier, 1965: 171. =*Labiosthenolepis sibogae* (Horst)].

Remarks.—*Leanira yhleni* was incompletely described by Malmgren (1867) and the holotype (NRS) is in poor condition. Some specimens in the BMNH from a *Porcupine* station off N.W. Spain, identified by McIntosh (1876), serve to supplement the description. *L. yhleni* was referred to *Sthenolepis* by Hartman (1965:14), in her Catalogue; this was followed by Campoy (1982:98), Kirkegaard (1983:200), and others. Some of the widely distributed records of the species need to be checked.

Material examined.—Northeast Atlantic Ocean: Ile de Ré near La Rochelle, France, 1865, G. von Yhlen, collector, holotype (NRS 599). Off Cape Finisterre, N. W. Spain, 146 m, *Porcupine* sta 10, 1870, 14 specimens (BMNH 1921:5:659–665; USNM 49564, ident. by McIntosh 1876). Off Accra, Ghana West Africa, 41.4 m, Buchanan Survey, 1 specimen (BMNH 1953.3.1.608, ident. by Tebble, 1955). France, *Andrée* sta III, 14 Aug 1922, Monod, collector, 4 specimens (MNHNP, collection of P. Fauvel & F. Rullier). Tyrrhenian Sea, 50–75 m, soft bottom, 1977, M. C. Gambi, collector, 2 specimens (collection M. C. Gambi).

Type material.—The holotype is an incomplete, flaccid specimen, 65 mm long, 5 mm wide, including setae, and 95 segments.

Description.—Complete specimen from *Porcupine* sta 45 mm long, 4 mm wide with setae, about 120 segments; incomplete specimen with 58 segments, 35 mm long, 5 mm wide. Body subquadrangular, flattened dorsoventrally, tapering gradually posteriorly. Elytra large, covering mid-dorsum except anteriorly; first pair small, rounded, becoming elongate oval to subcordiform; thin, transparent, without tubercles or papillae; with rounded opaque area posterolateral to

place of attachment to elytophore (Fig. 6E–H).

Prostomium and tentacular segment (I) fused basally; prostomium oval, wider than long; ceratophore of median antenna large, cylindrical, with pair of prominent lateral auricles and long tapering style; lateral antennae short, bilobed, fused to dorsal inner sides of I; posterior pair of eyes lateral to base of ceratophore; much larger anterior pair of eyes hidden from view dorsally by lateral auricles; palps very long, emerging ventral to I, with large rounded inner and shorter, rounded outer palpal sheaths; tentaculophores each with single aciculum, long, tapering dorsal tentacular cirrus, similar to but longer than median antenna, and short ventral tentacular cirrus; acicular lobe with 2 groups of long capillary setae extending anteriorly; without inner tentacular lobes; dorsal side of I without ctenidium, with 1–4 short stylodes between base of dorsal tentacular cirrus and lateral antenna (Fig. 5A–C).

Segment II or buccal segment with large, oval labial lobes on lateral lips of ventral mouth (Fig. 5B, C); biramous parapodium with notopodium rounded, with circlet of filiform stylodes and radiating bundle of long capillary notosetae; larger neuropodium with numerous stylodes and fan-shaped bundle of compound spinigerous neurosetae; ventral buccal cirri thick, tapered and longer than following ventral cirri (Fig. 5A, B, D). Segment III without dorsal cirri or dorsal tubercles (Fig. 5A); parapodia similar to II but with fewer stylodes and smaller ventral cirri (Fig. 5E); neurosetae compound spinigers with blades rather long, canaliculate, lower ones more slender than upper ones (Fig. 5F).

More posterior parapodia with branchiae attached to dorsal tubercles or elytophores, beginning about segment 8–12, rudimentary more anteriorly; parapodial ctenidia dorsal to notopodium, 3 per parapodium, rather small, beginning about segment 8–16 (Fig. 6A, C). Notopodium cylindrical, with

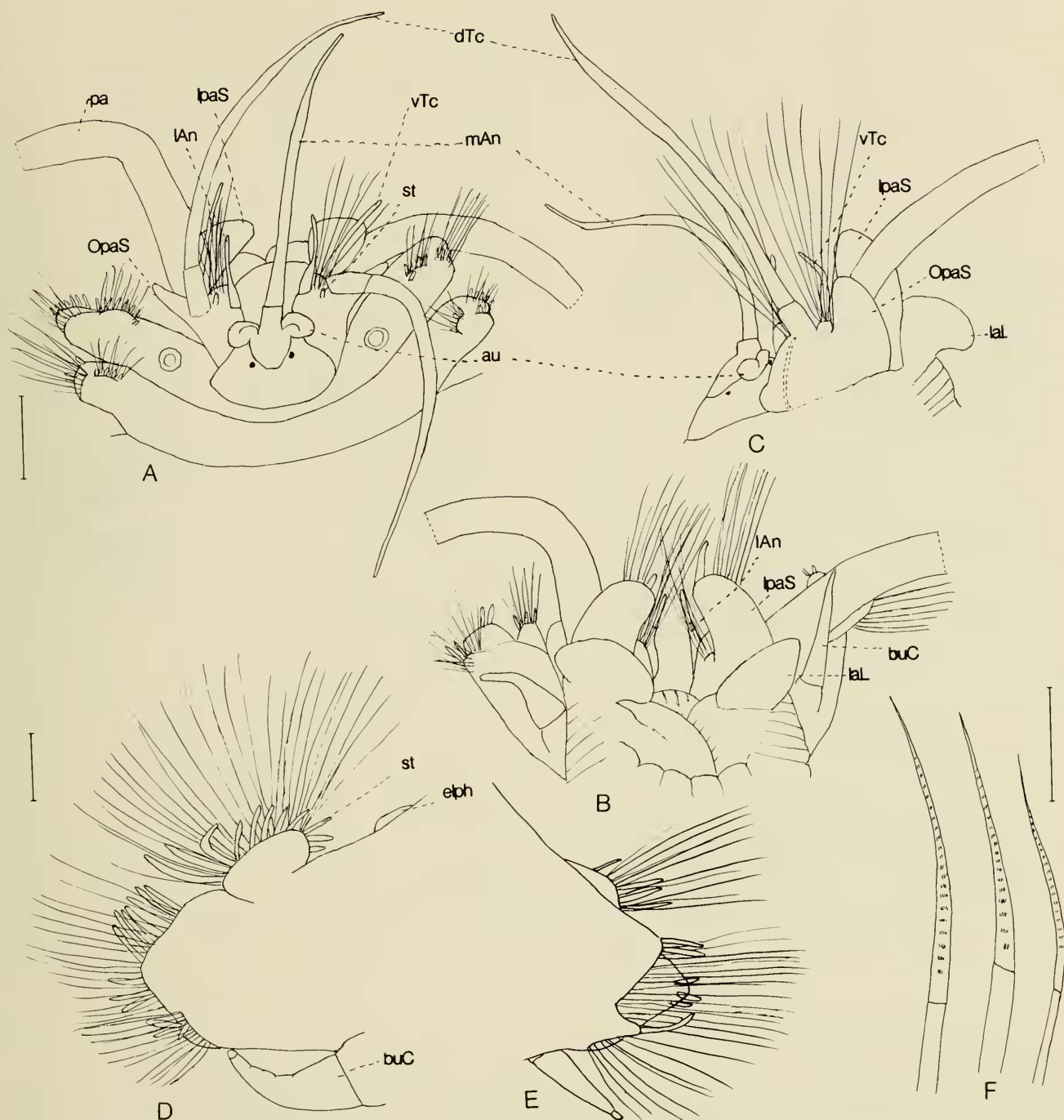


Fig. 5. *Labioleanira yhleni*, specimens from *Porcupine* sta. (USNM 49564, from BMNH 1921.5.659–665): A, Dorsal view of anterior end, pharynx partially extended, larger anterior pair of eyes hidden from view, tips of long palps not shown; B, Ventral view of anterior end of another specimen; C, Lateral view of prostomium, right I, and labial lobe on lateral lip; D, Right elytrigerous parapodium of segment II, anterior view; E, Right parapodium of segment III, posterior view; F, Upper, middle and lower neurosetae from same. Scales = 0.5 mm for A–C; 0.2 mm for D, E; 0.1 mm for F. For abbreviations, see Fig. 1.

circlet of stylodes on subdistal bract and large digitiform distal stylode; larger neuropodium with presetal conical acicular lobe and bilobed postsetal lobe with upper and lower groups of stylodes; ventral cirrus short, with basal knob and articulated tip (Fig. 6A,

C). Neurosetae all compound spinigers with rather long canaliculate blades, lower ones more slender than upper ones (Fig. 6B, D).

Distribution.—North-east Atlantic Ocean, France, Spain Mediterranean Sea, West Africa, in 1–1900 m.

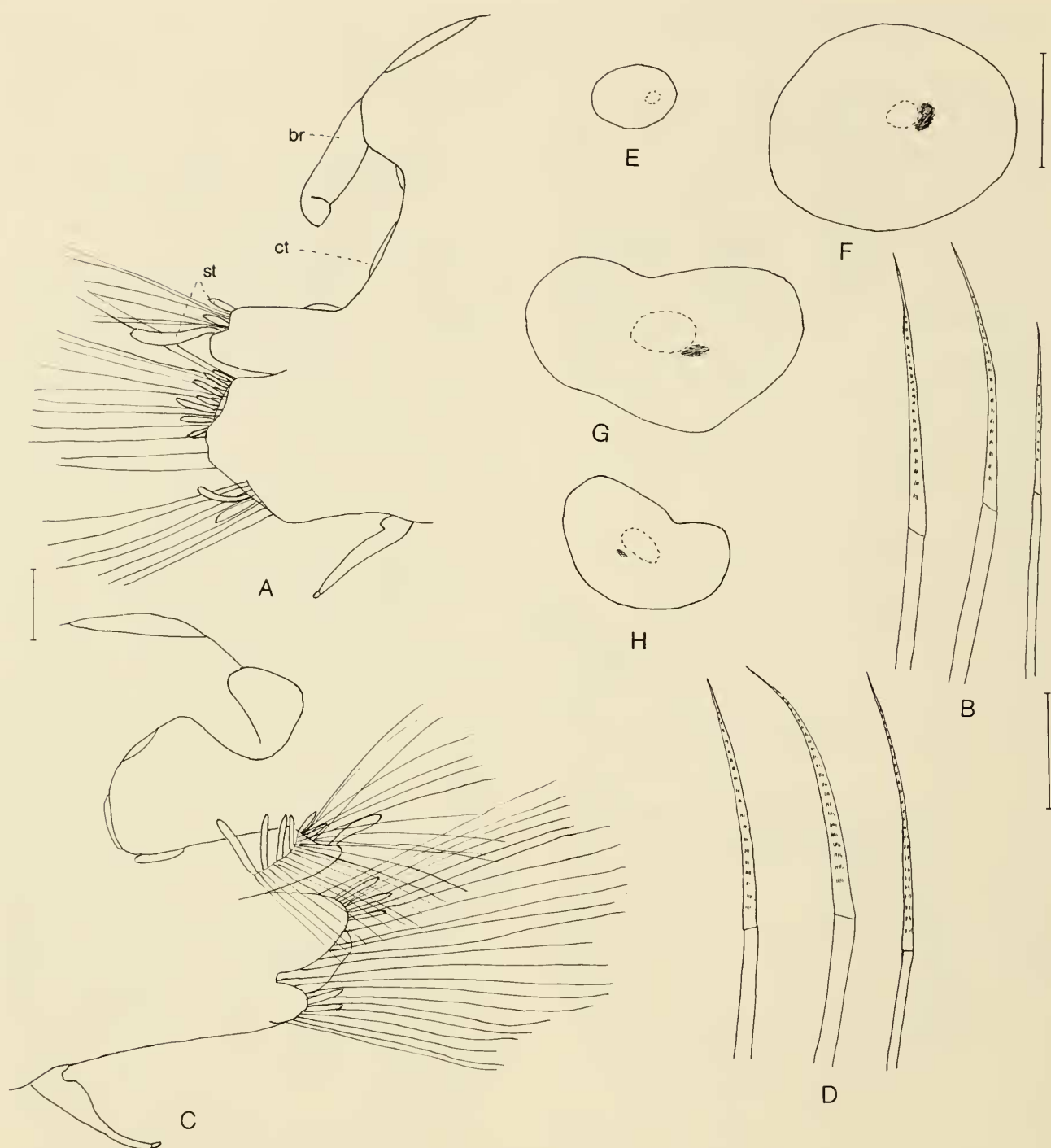


Fig. 6. *Labioleanira yhleni*, specimen from *Porcupine* sta (USNM 49564, from BMNH 1921.5.659-665): A, Right anterior parapodium, anterior view; B, Upper, middle and lower neurosetae from same; C, Right middle parapodium, posterior view; D, Upper, middle and lower neurosetae from same; E, Right 1st elytron; F, Right anterior elytron; G, Right middle elytron; H, Left posterior elytron. Scales = 0.2 mm for A, C; 0.1 mm for B, D; 1.0 mm for B-H. For abbreviations, see Fig. 1.

Labioleanira tentaculata (Horst, 1917),
new combination
Figs. 7, 8

Leanira tentaculata Horst, 1917:117, pl. 24:
figs. 4, 5. Hartman, 1959:116 (Catalogue).
Sthenelais luxuriosa.—Treadwell, 1920:592

(part; *Albatross* sta D5257). Not Grube,
1875.

Sthenolepis tentaculata.—Hartman, 1965:
14 (Catalogue).—Wu & Chen, 1985:72.

Material examined.—Malay Archipelago,
Siboga stations: Java Sea, 06°16'5,

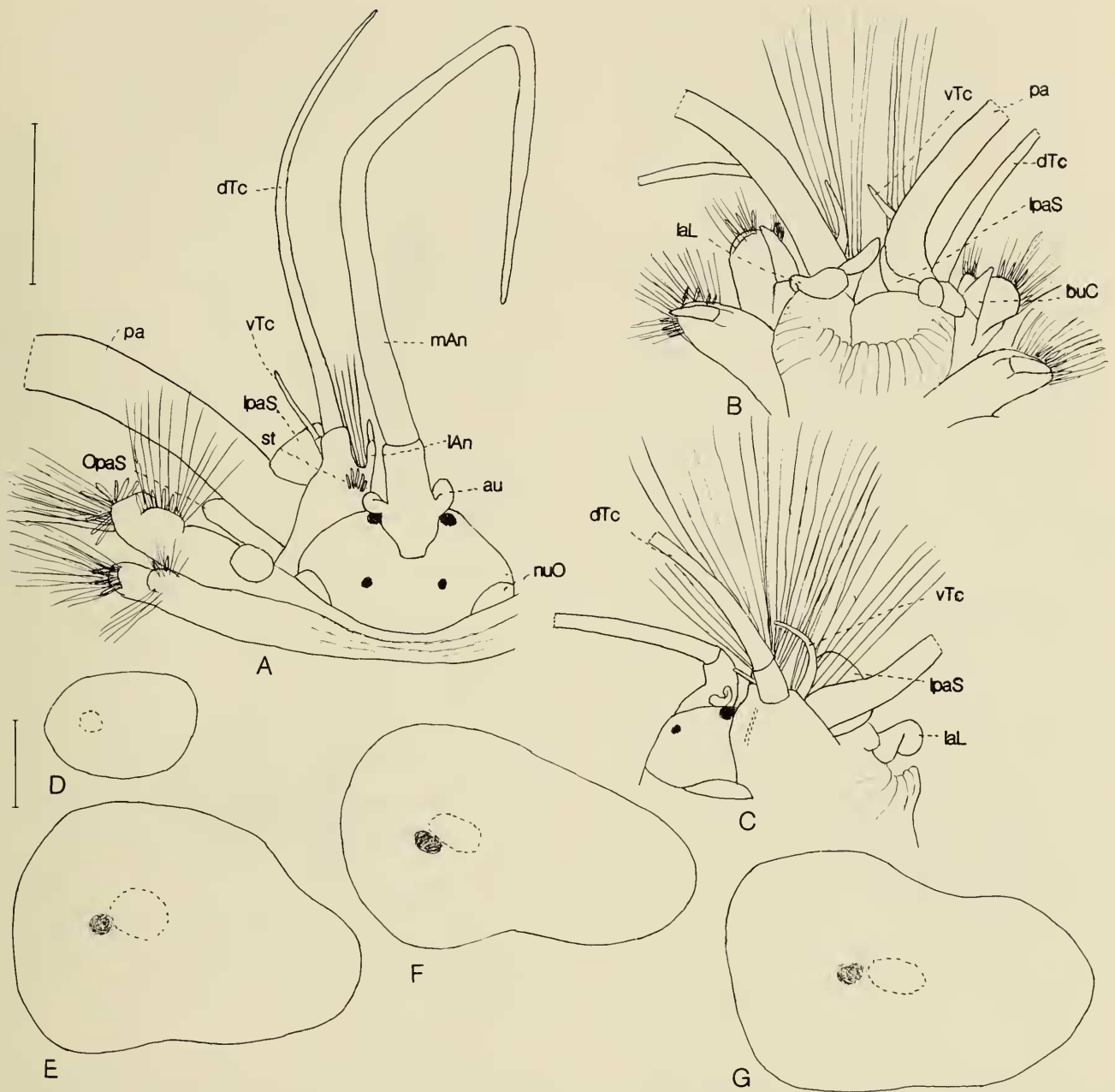


Fig. 7. *Labioleanira tentaculata* (syntypes of *Leanira tentaculata*: A, ZMA 528.1; B, C, ZMA 528.2; D-F, RMNH 1165); A, Dorsal view of anterior end (right side had been cut off), pharynx partially extended, tip of palp not shown; B, Ventral view of anterior end, tips of palps and dorsal tentacular cirri not shown; C, Lateral view of prostomium, tentacular lobe (I), and labial lobe on lateral lip (II), tips of palp, median antenna and dorsal tentacular cirrus not shown, aciculum dotted; D, Left 1st elytron; E, Left 6th elytron; F, Left middle elytron; G, Left posterior elytron. Scales = 1.0 mm for A-C; 0.5 mm for D-G. For abbreviations see Fig. 1.

114°37'E, 82 m, fine yellowish grey mud, sta 319, 22 Feb 1900, syntype of *L. tentaculata* (ZMA 528.1); 2 syntypes (RMNH 1165). 06°05'S, 114°07'E, 82 m, fine grey mud, sta 320, 23 Feb 1900, 2 syntypes of *L. tentaculata* (ZMA 528.2).

Philippine Islands, Southern Mindanao, eastern Illana Bay, 51 m, *Albatross* sta D5257, 22 May 1908, 3 specimens (USNM 17515, as *S. luxuriosa* by Treadwell, 1920).

Type material. — The five syntypes are incomplete, with more than 50 segments, 25 mm long and 5 mm wide, with setae.

Description. — Elytra large, nearly covering dorsum, small and oval on anterior few segments, becoming progressively larger and subpyriform in shape, thin, transparent, with opaque spots lateral to their place of attachment (Fig. 7D-G). Prostomium and tentacular segment (I) fused basally; prosto-

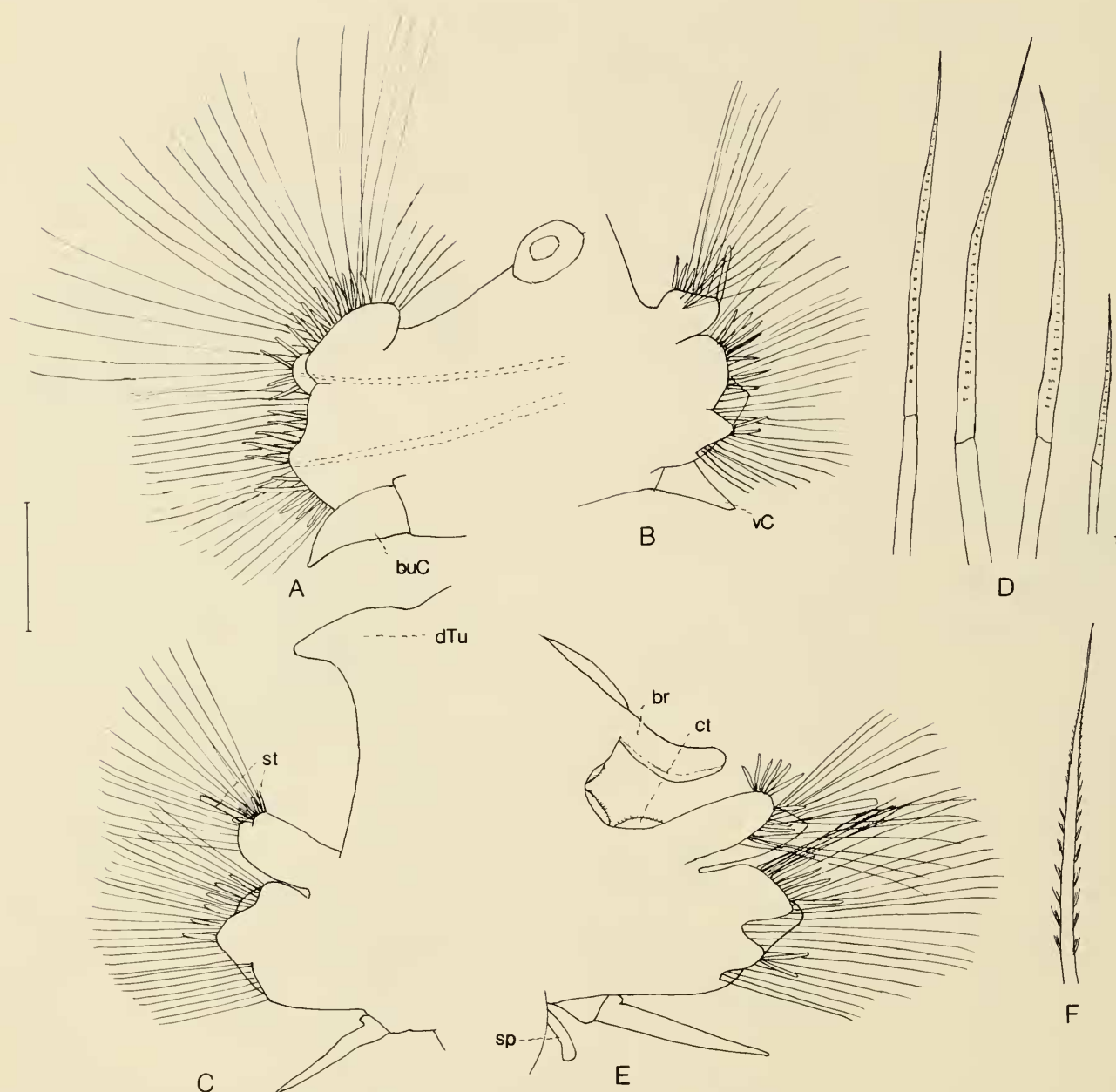


Fig. 8. *Labioleanira tentaculata* (syntype of *Leanira tentaculata*, ZMA 528.1): A, Right elytrigerous parapodium of segment II, anterior view, acicula dotted; B, Right parapodium of segment III, posterior view; C, Right parapodium from anterior region with dorsal tubercle, anterior view; D, Upper, middle and lower neurosetae from same; E, Right parapodium from middle region, posterior view; F, Simple neuroseta from same. Scales = 0.5 mm for A-C, E; 0.1 mm for D, F. For abbreviations, see Fig. 1.

mium oval, wider than long; ceratophore of median antenna large, cylindrical, with pair of small lateral auricles and long tapering style; lateral antennae short, bilobed, fused to dorsal inner sides of I; posterior pair of eyes in middle of prostomium; larger anterior pair of eyes below small antennal auricles and not hidden from view; palps very long, emerging ventral to I, with large, oval inner and low, outer palpal sheaths; tentaculophores each with single aciculum, long

tapering dorsal tentacular cirrus, similar to but shorter than median antenna, and much shorter ventral tentacular cirrus; acicular lobe with 2 groups of long capillary setae extending anteriorly; without inner tentacular lobes; dorsal side of segment I with about 6 short stylodes between base of dorsal tentacular cirrus and lateral antenna (Fig. 7A, C; Horst 1917, pl. 24: fig. 4).

Segment II with semicircular nuchal organs and thick, fleshy labial lobes on lateral

lips of ventral mouth (Fig. 7A–C); biramous parapodium with notopodium rounded, with circlet of filiform stylodes and radiating bundle of long capillary notosetae; larger neuropodium with numerous stylodes and fan-shaped bundle of compound spinigerous neurosetae; ventral buccal cirri thick, tapered, and longer than following ventral cirri (Figs. 7A, B, 8A). Segment III without dorsal cirri or dorsal tubercles (Fig. 7A; Horst, 1917, pl. 24: fig. 4); parapodia similar to II but with fewer stylodes and smaller ventral cirri (Fig. 8B).

More posterior parapodia with branchiae attached to dorsal tubercles or elytophores, beginning about segment 19–25, rudimentary more anteriorly; parapodial ctenidia, dorsal to notopodium, 3 per parapodium, low, nearly contiguous, beginning about segment 19 (Fig. 8E). Notopodium cylindrical, with circlet of stylodes on subdistal bract and large digitiform distal stylode; larger neuropodium with presetal conical acicular lobe and bilobed postsetal lobe, with upper and lower groups of stylodes; short ventral cirrus with basal knob (Fig. 8C, E; Horst 1917, pl. 25: fig. 5). Neurosetae compound spinigerous, with long canaliculate blades, lower ones shorter and more slender (Fig. 8D); some middle parapodia with few upper simple neurosetae with spirally arranged spinose whorls (Fig. 8E, F). Tubular segmental papilla, near base of ventral cirrus, beginning about segment 30 (Fig. 8E).

Distribution. — West-Central Pacific Ocean, Indonesia, Philippines, South China Sea, in 51–82 m.

Key to the Two Genera and Four Species of Sigalionidae Covered Herein

1. Segment I with L-shaped inner tentacular lobes medial to tentaculophores (Figs. 1C, D, 3B). Dorsal sides of segment I with oval ctenidia (Figs. 1A, 3A). Segment III with (Fig. 1A, G) or without (Fig. 3A) small dorsal tubercles
 *Labiosthenolepis*, new genus 2

- Segment I without inner tentacular lobes medial to tentaculophores (Figs. 5C, 7C). Dorsal sides of segment I without ctenidia (Figs. 5A, 7A). Segment III without dorsal tubercles (Figs. 5A, 7A)
 *Labioleanira*, new genus 3
- 2. Labial lobes on lateral lips of segment II thick, fleshy, lobulate (Fig. 1B–D). Dorsal sides of segment I without stylodes (Fig. 1A). Segment III with small dorsal tubercles and distal papilla (Fig. 1A, G). Blades of compound spinigerous neurosetae in middle parapodia short (Fig. 2D) . . . *Labiosthenolepis laevis* (McIntosh), new combination
- Labial lobes on lateral lips of segment II oval, thin, flattened (Fig. 3B). Dorsal sides of segment I with few, short stylodes between bases of dorsal tentacular cirri and lateral antennae (Fig. 3A). Segment III without dorsal tubercles (Fig. 3A). Blades of compound spinigerous neurosetae of middle parapodia long (Fig. 4D) . . *Labiosthenolepis sibogae* (Horst), new combination
- 3. Prostomium with lateral auricles on ceratophore of median antenna large, hiding anterior pair of large eyes; posterior pair of small eyes lateral to base of ceratophore (Fig. 5A). Dorsal sides of segment I with single small stylode between bases of tentacular cirri and lateral antennae (Fig. 5A). Without nuchal organs (Fig. 5A). Labial lobes on lateral lips of segment II oval, flattened (Fig. 5B, C). Middle parapodia without additional single neurosetae
 *Labioleanira yhleni* (Malmgren), new combination
- Prostomium with lateral auricles on ceratophore of median antenna small, not hiding anterior pair of large eyes; posterior pair of small eyes in middle of prostomium (Fig. 7A). Dorsal sides of segment I with

5 or so stylodes between bases of dorsal tentacular cirri and lateral antennae (Fig. 7A). With semicircular nuchal organs (Fig. 7A, B). Labial lobes on lateral lips of segment II, thick, fleshy, lobulated (Fig. 7B, C). Middle parapodia with additional simple spinose neurosetae (Fig. 8F)
 *Labioleanira tentaculata* (Horst),
 new combination

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